

that "*Rubin et al.* shows the invention as claimed including a multi-chamber apparatus for processing substrates including initial load lock chamber for storage 102 connected to a multitude of process chambers 100 each chamber including a modular plumbing tray 172 and a chamber tray." The examiner also asserts that "any of the individual process chambers 100 of *Rubin et al.* can be considered a 'transfer chamber' since the wafer is physically being moved from one side to the other."

Applicants respectfully traverse the rejection. *Rubin et al.* discloses a linear, modular processing system whereby each modular processing apparatus 100 consists of a processing module 176 and a chassis 102 that is connectable to "an underlying service facility docking subassembly 104." (See, *Rubin et al.* at col. 4, lines 1-2). Each modular processing apparatus 100 is moveable from a remote location to the facility subassembly 104 where a common service conduit 172 provides connections to the facility subassembly 104. (See, *Rubin et al.* at col. 6, lines 12-15 and at col. 5, lines 55-57). Further, *Rubin et al.* teaches that "certain ones" of the modular processing apparatuses 100 are provided with a wafer transporting mechanism 178 and permits transfer of a silicon wafer between adjacent processing modules 176. (See, *Rubin et al.* at col. 8, lines 1-4 and 27-30).

*Rubin et al.* does not teach, show, or suggest one or more process chambers disposable about a transfer chamber, as recited in base claims 1, 28, and 29. The examiner is kindly reminded that each and all limitations of the claims must be taught or suggested by the prior art. The examiner's statement that "any of the individual process chambers 100 of *Rubin et al.* can be considered a transfer chamber" is not a proper basis for rejection. *Rubin et al.* does not teach, show, or suggest one or more process chambers separate and apart from a transfer chamber. Claims 11, 13-15, and 18-20 depend from claim 1 and thus, are patentable for at least the same reasons. Withdrawal of the rejection is respectfully requested.

Claims 1, 11, 13-16, 18 and 28 stand rejected under 35 U.S.C. § 102(e) as being anticipated by *Lei et al.* (U. S. Patent No. 6,083,321). The examiner states that "*Lei et al.* shows the invention as claimed including a transfer chamber 90, a modular plumbing tray 10 adjacent the transfer chamber and having connections from the facility to the process chambers 30, and a chamber tray adjacent the one or more process chambers including an injection control valve 18". The examiner further states that the chamber

tray has facility connections connected to one or more of the facility connections in the plumbing tray.

Applicants respectfully traverse the rejection. *Lei et al.* teaches a gas delivery system 10 that is attached to a process chamber 30. (See *Lei, et al.* at col. 2, line 66 through col. 3, line 7). The process chamber 30 is disposable about a transfer chamber 90. *Lei et al.* does not teach, show, or suggest a plumbing tray disposable adjacent a transfer chamber and having facility connections for each process chamber and each load lock chamber, and a chamber tray disposable adjacent each process chamber, each load lock chamber and the transfer chamber, each chamber tray in fluid communication with the facility connections of the plumbing tray, as recited in claims 1, 28, and 29 as well and those dependent therefrom.

In further support of the Applicant's traversal, the examiner states that *Lei et al.* shows "a modular plumbing tray 10 adjacent the transfer chamber and having connections from the facility to the process chambers 30" (emphasis added). Accordingly, *Lei et al.* does not teach, show, or suggest a plumbing tray... having facility connections for each process chamber... and a chamber tray disposable adjacent each process chamber, each chamber tray in fluid communication with the facility connections of the plumbing tray, as recited in claims 1, 28, and 29 and those dependent therefrom. For these reasons, Applicants submit that the claims are in condition for allowance and respectfully request withdrawal of the rejection.

Claim 8 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over *Lei et al.* (U. S. Patent No. 6,083,321) and claim 12 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over *Lei et al.* (U. S. Patent No. 6,083,321). Applicants respectfully traverse these rejections. Claim 1 has been distinguished above. Claims 8 and 12 depend from claim 1 and thus, are patentable for at least the same reasons. Withdrawal of the rejections is respectfully requested.

Furthermore, the examiner is kindly reminded that *Lei et al.* is §102(e) prior art that may not preclude patentability under §103 obviousness. Both *Lei et al.* and the claimed subject matter were, at the time the invention was made, subject to an obligation of assignment to Applied Materials, Inc., the assignee of both *Lei et al.* and the present invention. Accordingly, the rejection is improper, and withdrawal of the rejection is respectfully requested.

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Claims 8 and 12 are therefore in condition for allowance since no other rejection is pending. Allowance of at least claims 8 and 12 is respectfully requested.

Claims 21-22 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over *Rubin et al.* (U. S. Patent No. 4,852,516). Applicants respectfully traverse this rejection. Claim 1 has been distinguished above. Claims 21-22 depend from claim 1 and thus, are patentable for at least the same reasons. Withdrawal of the rejections is respectfully requested.

The prior art made of record is noted. However, it is believed that the secondary references are no more pertinent to the Applicants' disclosure than the primary references cited in the office action. Therefore, it is believed that a detailed discussion of the secondary references is not deemed necessary for a full and complete response to this office action.

In conclusion, the references cited by the examiner, neither alone nor in combination, teach, show, or suggest the claimed invention. Having addressed all issues set out in the office action, Applicants respectfully submit that the claims are in condition for allowance and respectfully request that the claims be allowed.

Respectfully submitted,



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## APPENDIX

1. (Amended) An apparatus for processing substrates, comprising:
  - a) a transfer chamber comprising one or more process access ports;
  - b) one or more load lock chambers disposable about the transfer chamber;
  - c) one or more process chambers disposable about the transfer chamber;
  - d) a plumbing tray disposable adjacent the transfer chamber and having facility connections for each process chamber and each load lock chamber; and
  - e) a chamber tray disposable adjacent each process chamber, each load lock chamber and the transfer chamber, each [the] chamber tray in fluid communication with the facility connections of the plumbing tray, wherein each process chamber is disposable on each chamber tray.
  
8. (Amended) An apparatus for processing substrates, comprising:
  - a) a transfer chamber comprising [The apparatus of claim 7, wherein the transfer chamber comprises] at least six process access ports;
  - b) one or more load lock chambers disposable about the transfer chamber;
  - c) one or more process chambers disposable about the transfer chamber;
  - d) a plumbing tray disposable adjacent the transfer chamber and having facility connections for each process chamber and each load lock chamber; and
  - e) a chamber tray disposable adjacent each process chamber, each load lock chamber and the transfer chamber, each chamber tray in fluid communication with the facility connections of the plumbing tray, wherein each process chamber is disposable on each chamber tray.
  
12. (Amended) An apparatus for processing substrates, comprising:
  - a) a transfer chamber comprising one or more process access ports;
  - b) one or more load lock chambers disposable about the transfer chamber;
  - c) one or more process chambers disposable about the transfer chamber;
  - d) a plumbing tray disposable adjacent the transfer chamber and having facility connections for each process chamber and each load lock chamber; and

e) a chamber tray disposable adjacent each process chamber, each load lock chamber and the transfer chamber, each chamber tray in fluid communication with the facility connections of the plumbing tray, wherein each process chamber is disposable on each chamber tray and [The apparatus of claim 1,] wherein the chamber tray is mounted separately to the transfer chamber.

28. (Amended) An apparatus for processing substrates, comprising:

- a) a transfer chamber comprising one or more process access ports;
- b) one or more load lock chambers disposable about the transfer chamber;
- c) one or more process chambers disposable about the transfer chamber;
- d) a plumbing tray disposable adjacent the transfer chamber and having facility connections for each process chamber and each load lock chamber; and
- e) a chamber tray disposable adjacent each process chamber, each load lock chamber and the transfer chamber, wherein each [the] chamber tray is in fluid communication with the facility connections of the plumbing tray, and wherein each process chamber and each chamber tray form a modular unit.

29. (Amended) An apparatus for processing substrates, comprising:

- a) a transfer chamber comprising one or more process access ports;
- b) one or more load lock chambers disposable about the transfer chamber;
- c) one or more process chambers disposable about the transfer chamber;
- d) a plumbing tray disposable underneath the transfer chamber and having facility connections for each process chamber and each load lock chamber; and
- e) a chamber tray disposable adjacent each process chamber, each load lock chamber and the transfer chamber, each [the] chamber tray in fluid communication with the facility connections of the plumbing tray.